AMENDMENTS TO THE CLAIMS

1. (**Currently Amended**) A method for preparing a thin film of metal oxide containing only one metal element on a substrate, comprising the steps of:

applying a sol-gel solution containing said one metal element to a surface of said substrate;

drying said sol-gel solution to prepare a dried gel film on said substrate;

soaking said dried gel film on said substrate in an alkaline aqueous solution containing said metal element in a container;

sealing said container; and

performing hydrothermal treatment for said dried gel film on said substrate in the sealed container to prepare said thin film of metal oxide on said substrate.

2. (Original) The method for preparing a thin film of metal oxide according to claim 1, wherein in said step of performing hydrothermal treatment, an internal temperature of said sealed container is set to a temperature of 374°C or lower.

3. (Original) The method for preparing a thin film of metal oxide according to claim 2, wherein in said step of performing hydrothermal treatment, an internal temperature of said sealed container is set to a temperature of no lower than 140°C and no higher than 240°C.

4. (Original) The method for preparing a thin film of metal oxide according to claim 1, further comprising the step of boiling said alkaline aqueous solution before said step of soaking.

5. (**Currently Amended**) The method for preparing a thin film of metal oxide according to claim 1, wherein said

metal element contained in said metal oxide is selected from the group consisting of hafnium, zirconium, praseodymium [[,]] and aluminum ~~and lanthanum~~.

6. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein

in said step of performing hydrothermal treatment, a pressure in said sealed container is 15 atm.

7. (Withdrawn) A thin film of metal oxide prepared by a method for preparing a thin film of metal oxide containing one or more metal elements on a substrate, which comprises the steps of:

applying a sol-gel solution containing said one or more metal elements to a surface of said substrate;

drying said sol gel solution to prepare a dried gel film on said substrate;

soaking said dried gel film on said substrate in an alkaline aqueous solution containing at least one kind of metal element among said one or more metal elements in a container;

sealing said container; and

performing hydrothermal treatment for said dried gel film on said substrate in the sealed container to prepare said thin film of metal oxide on said substrate.

8. (Withdrawn) The thin film of metal oxide according to claim 7, wherein said thin film of metal oxide has substantially no carbon.

9. (Withdrawn) The thin film of metal oxide according to claim 7, wherein a leakage current in said thin film of metal oxide is 10^{-7} A/cm^2 or less when a voltage of 2V is applied to said thin film of metal oxide.

10. (Withdrawn) The thin film of metal oxide according to claim 7, wherein a relative dielectric constant of said thin film of metal oxide is 20 or higher.

11. (Withdrawn) A capacitor including a thin film of metal oxide containing one or more metal elements as a dielectric, wherein said thin film of metal oxide is prepared by a method for preparing a thin film of metal oxide containing one or more metal elements on a substrate, which comprises the steps of:

applying a sol-gel solution containing said one or more metal elements to a surface of said substrate;

drying said sol-gel solution to prepare a dried gel film on said substrate;

soaking said dried gel film on said substrate in an alkaline aqueous solution containing at least one kind of metal element among said one or more metal elements in a container;

sealing said container; and

performing hydrothermal treatment for said dried gel film on said substrate in the sealed container to prepare said thin film of metal oxide on said substrate.

12. (Withdrawn) A memory comprising a capacitor which includes a thin film of metal oxide containing one or more metal elements as a dielectric, wherein said thin film of metal oxide is prepared by a method for preparing a thin film of metal oxide containing one or more metal elements on a substrate, which comprises the steps of:

applying a sol-gel solution containing said one or more metal elements to a surface of said substrate;

drying said sol-gel solution to prepare a dried gel film on said substrate;

soaking said dried gel film on said substrate in an alkaline aqueous solution containing at least one kind of metal element among said one or more metal elements in a container;

sealing said container; and

performing hydrothermal treatment for said dried gel film on said substrate in the sealed container to prepare said thin film of metal oxide on said substrate.

13. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, further comprising a step of taking said substrate out of the container after said step of performing hydrothermal treatment;

wherein a set of said steps of applying said sol-gel solution, drying said sol-gel solution, soaking said dried gel film, sealing said container, performing hydrothermal treatment, and taking said substrate out of the container is performed a plurality of times.

14. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein said container is formed from stainless steel.

15. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein a heater heats said container externally.

16. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein said container is equipped with a thermocouple for detecting temperature of liquid in said container.

17. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein said container is equipped with a leak tube for reducing pressure in said container.

18. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 1, wherein said container contains a beaker with a removable lid.

19. (Previously Presented) The method for preparing a thin film of metal oxide according to claim 18, wherein said beaker contains a substrate holder.

20. (Currently Amended) The method for preparing a thin film of metal oxide according to claim 18, wherein deionized water is put in a portion which surrounds the beaker in the container, and wherein the container is a stainless steel container.

21. (New) The method for preparing a thin film of metal oxide according to claim 1, wherein said metal element contained in said metal oxide is lanthanum.